

Appl. No. 10/030,065
Amdt. dated 06/3/2004
Reply to Office Action of 3/3/2004

Amendments to the Claims:

Please amend the claims as follows:

15. (Currently Amended): A method for producing a ring traveler (10) for ring spinning or ring twisting machines, which has a core (20) consisting of iron material, and comprising the step of subjecting at least a portion of the core (20) to a nitriding treatment during which heat energy and a nitriding agent as active medium are supplied to the core (20), wherein the method includes the step of oxidizing the core (20) after the nitriding treatment.

16. (Original): The method as claimed in claim 15, wherein the core (20) is heated to a temperature in the range of 450°C - 600°C.

17. (Original): The method as claimed in claim 16, wherein the core (20) is maintained in said temperature range for 3 - 60 hours.

18. (Original): The method as claimed in claim 15, 16 or 17, wherein the nitriding agent is supplied in the form of a gas comprising NH_3 and N_2 components, a nitrogen-enriched liquid or a nitrogen-enriched plasma.

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19. (Original): The method as claimed in claim 15, wherein the active medium includes components selected from the group consisting of sulfur components and carbon components.

20. (Original): The method as claimed in claim 15, wherein method includes the step of polishing the core (20) before the nitriding treatment.

21. (Original): The method as claimed in claim 15, wherein method includes the step of polishing the core (20) after the nitriding treatment.

22. (Canceled)

23. (Canceled)

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24. (Currently Amended): A ring traveler (10) for ring spinning or ring twisting machines, comprising an iron core (20) wherein at least one mechanically stressed part of the core (20) has a nitrided edge layer (23, 24), and wherein the edge layer (23, 24) includes a connecting layer (23) and a diffusion layer (24), whereby the connecting layer (23) has a thickness of 8 μ m - 12 μ m and the diffusion layer (24) has a thickness of 100 μ m to 200 μ m.

25. (Original): A ring traveler (10) according to claim 24, wherein the mechanically stressed part of the core (20) comprises a running surface for the thread.

26. (Original): A ring traveler (10) according to claim 24, wherein the mechanically stressed part of the core (20) comprises a surface running on the ring of the spinning or twisting machine.

27. (Canceled)

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28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Original): The ring traveler (10) as claimed in claim 24 wherein the connecting layer (23) contains components selected from the group consisting of sulfur and carbon.

34. (Original): The ring traveler (10) as claimed in claim 24, wherein the surface (22) of the core (20) is polished and/or is provided with an oxide layer.

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35. (Original): The ring traveler (10) as claimed in claim 34, wherein the surface (22) of the core (20) is black, blue, yellow or white.

36. (Original): The ring traveler (10) as claimed in claim 24, wherein the basic material (21) of the core (20) is nitriding steel.

37. (Original): The ring traveler (10) as claimed in claim 24, wherein the basic material (21) of the core (20) contains a nitride-forming element selected from the group consisting of chromium, vanadium, aluminum, molybdenum, manganese and nickel.